

REMARKS

This Amendment is responsive to the Office Action dated October 29, 2003. In this Amendment, Applicants have amended claims 1, 8, 9, 15, 19, 23, 25, 32 and 33, canceled claims 3, 10, 18, 20, 27, and 34, and added new claims 41-48. Claim 38 was previously canceled. Accordingly, claims 1, 2, 4-9, 11-17, 19, 21-26, 28-33, 35-37 and 39-47 are now pending in this application. Per the Examiner's instructions, Applicants have renumbered original claim 38 as claim 36, renumbered original claim 39 as claim 37, renumbered canceled claim 39 (second occurrence) as claim 38, and renumbered claims 40 and 41 as claims 39 and 40, respectively.

Obviousness-Type Double Patenting Rejection

In the Office Action, the Examiner provisionally rejected claim 1, 6, 7, 8, 10, 12, 13, 14, 15, 16, 19, 21, 24, 25, 30, 31, 32, 34-37, 39 and 40 of the present application (09/778,515) under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1, 5-7, 9, 11-13, 16-18, 22, 27, 29, 31-33, 35, 37, 38, 41, and 42 of copending application no. 09/778,704 (the '704 application). Applicants respectfully traverse this rejection.

Applicants respectfully submit that the Examiner has not established a prima facie case of obviousness-type double patenting. To support a provisional obviousness-type double patenting rejection, the Examiner must assess the differences between the claims in the pending applications, and indicate why the claims in one application would have been obvious over the claims in the other application. In re Berg, 46 USPQ2d 1226, 1229 (Fed Cir. 1998). The Examiner has not met this burden.

As an illustration, the Examiner recognized that claim 1 of the present application requires a dithered gray background representing a gray level of approximately 25-40% and acknowledged that claim 1 of the '704 application does not specify such a feature. In addition, the Examiner noted that claim 1 of the '704 application requires generation of red-blue shifted gray elements, whereas claim 1 of the present application does not specify such a feature.

Despite these differences, the Examiner concluded that claim 1 of the pending application would have been obvious in view of claim 1 of the '704 application. In particular, the Examiner stated that the "red-blue shift gray level" limitation of the '704 application is "a way to adjust the

second level.” The Examiner reasoned that “[b]y adjusting the red-blue shift gray level, one may obtain gray level of 25-40%.”

Applicants respectfully submit that the Examiner’s analysis is in error. First, the “25-40%” limitation pertains to the dithered gray background, as set forth in claim 1 of the present application, and not to gray elements displayed in conjunction with a gray background, as set forth in claim 1 of the ‘704 application. Accordingly, the “25-40%” and “red-blue” limitations pertain to different features of the claimed inventions. Moreover, even if the limitations did pertain to the same features, the Examiner pointed to no teaching that would have suggested to one of ordinary skill in the art the desirability of making the required modification.

The Examiner applied a similar rationale in rejecting claims 15 and 25 of the present application. In view of the shortcomings noted above, Applicants respectfully request that the Examiner withdraw the provisional obviousness-type double patenting rejection. The above remarks are directed to the independent claims of the present application, and should be sufficient to overcome the provisional obviousness-type double patenting rejection. In light of the provisional status of the rejection, however, Applicants defer further comment on the Examiner’s analysis.

Examiner’s Response to Arguments

The Examiner withdrew the previous rejections under 35 U.S.C. § 112, first paragraph, § 112, second paragraph, § 102 and § 103 in favor of new grounds of rejection under § 103. However, the Examiner presented remarks in response to the arguments submitted by Applicants in the response filed May 27, 2003. In the remarks, the Examiner seemed to revisit some aspects of the previous rejection, yet withdrew the rejection. Applicants are somewhat confused, but respond to some of the points made by the Examiner below for purposes of clarification.

First, the Examiner noted his interpretation of “dithering” (page 5 of the Office Action) as follows: “Dithering relies on treating areas of an image as groups of dots (pixels) that are colored in different patterns (intensity).” Further, with respect to the Yamamoto reference, the Examiner suggested that a dithered background is produced by controlling pixel intensity (page 6 of the Office Action). Applicants respectfully submit that the Examiner’s interpretation of dithering is incorrect.

As previously explained by Applicants, it is well known to those of ordinary skill in the imaging arts that the term "dither" generally refers to the simulation of gray level by mixing a proportion of "on" pixels with "off" pixels to achieve the appearance of the desired gray level within the dithered region. See, e.g., <http://www.webopedia.com/TERM/D/dithering.html>. Hence, the dither is not controlled by pixel intensity, but rather by selectively turning pixels or groups of pixels (such as rows) on and off (100% intensity or 0% intensity) to simulate intensity levels within a region of pixels.

At page 6 of the Office Action, the Examiner referred to "gray elements" as "one of the infinity color elements." It is unclear to Applicants what is intended by "infinity color elements." A gray element, as claimed, is an element that mixes multiple color channels (red, green, blue) to produce a color. In this sense, "gray" refers to the blending of the colors, by combining different intensities of red, green and blue, i.e., 0 to 100% of each individual color channel. By selecting the gray element that most closely blends with the dithered gray background, the user identifies the particular red, green, and blue values that together yield a color that most closely matches the background.

Claim Rejection Under 35 U.S.C. § 103 in view of Brettel and Berger

In the Office Action, the Examiner rejected claims 1, 2, 5, 7, 8, 12, 25, 26, 29, 31, 32 and 36 under 35 U.S.C. 103(a) as being unpatentable over "Display gamma estimation applet by Hans Brettel (Brettel) in view of "Why do Images Appear Darker on Some Displays? An Explanation of Monitor Gamma" by Robert W. Berger (Berger).

Applicants respectfully traverse the rejection to the extent such rejections may be considered applicable to the claims as amended. The applied references fail to disclose or suggest the inventions defined by Applicants' claims, and provide no teaching that would have suggested the desirability of modification to arrive at the claimed invention.

In this Amendment, Applicants have amended claims 1, 8, 9, 15, 19, 23, 25, 32 and 33 to more appropriately define the invention. As a result, all of pending claims 1, 2, 4-9, 11-17, 19, 21-26, 28-33, 35-37, 39 and 40 now require gamma estimation based on selection of one of a plurality of gray elements that appears to most closely blend with a single dithered gray background displayed simultaneously with the gray elements, and which represents a fixed gray

level of approximately 25 to 40%, wherein at least some of the gray elements representing different gray levels. None of the applied references provide any teaching that would have suggested the features set forth in the claims.

Before addressing the differences between the applied references and the claimed invention, Applicants will discuss some of the contextual aspects of exemplary settings in which the claimed invention may be used. For example, although not limited to such an environment, the claimed invention may be particularly useful in the characterization of display devices used to access web content. In such an environment, a user may access a web server to obtain a variety of images for which color accuracy may be a concern. However, different display devices may have varying characteristics that cause users to experience significant color differences. Hence, it is desirable to characterize the display device of an individual user so that the images obtained from the web server can be adjusted to better suit the color characteristics of each user's display device and thereby present more consistent color accuracy.

Generally, it is not practical to professionally characterize each individual user's display device in a web environment characterized by potentially thousands of anonymous, unrelated users accessing the web from their homes or businesses. Instead, remote characterization techniques rely on individual user input. For bandwidth economy and ease of use, it is desirable to obtain the user input in as few steps as possible. In addition, the user input preferably is obtained in a simple series of input device selections (e.g., mouse clicks), rather than more complex adjustments or manipulations on the part of the user. Also, obtaining user input from a fixed set of choices simplifies the format and amount of information used to characterize the display device.

To this end, the claimed invention estimates gamma based on selection of one of a plurality of gray elements that appear to most closely blend with a single dithered gray background displayed simultaneously with the gray elements, and which represents a fixed gray level of approximately 25 to 40%. At least some of the gray elements represent different fixed gray levels. In this manner, the claimed invention may avoid the need for slider bars or other complicated input media to adjust the background gray level, and instead may rely on simple user selection of a particular gray element that matches the fixed background gray level.

The applied references provide no teaching that would have suggested the requirements of the claimed invention. Brettel provides a process for estimating the gamma of a display device. Applicants have examined the applet published on the web by Brettel, and note that it presents a center square against a background. The user adjusts a first slider bar to apparently adjust the pixel intensity of the background. In addition, the user adjusts a second slider bar to apparently adjust a degree of dithering in the gray patch.

The Brettel applet differs from the claimed invention in numerous ways. First, contrary to the claimed invention, the background presented by the Brettel applet is not dithered. Instead, the background in the Brettel applet appears to vary in pixel intensity on a continuous tone basis according to the position of the respective slider bar. Rather, it appears that the center square is dithered by a series of pixel lines that are selectively turned on and off, although it is difficult to confirm this point. In any event, the background in the Brettel applet clearly is not dithered.

Second, the Brettel applet does not present gray elements simultaneously with a single dithered gray background representing a fixed gray level. Consequently, a user of the Brettel applet cannot simply select one of a plurality of gray elements that appears to most closely blend with a fixed gray background. On the contrary, the user must manipulate a slider bar to manipulate the apparent intensity of the gray background. The user of the Brettel applet must also use an additional slider bar to view an array of gray levels for the center square to match the variable gray background.

Again, the background presented by the Brettel applet is not dithered, and is not fixed to a particular gray level range. Rather, the user is forced to manipulate slider bars to adjust not only the center square, but also the background intensity in the Brettel applet. This results in a more complex user interface that requires more labor and time in continually manipulating both of the slider bars in order to arrive at a close match and then estimate display device gamma. The Brettel applet is in stark contrast to the claimed invention, which merely requires that the user select one of the gray elements.

Fourth, and most importantly, the Brettel applet would have provided no suggestion to one of ordinary skill in the art of the desirability of using a single dithered gray background representing a fixed gray level of approximately 25 to 40%. As explained by Applicants' disclosure, a dithered background representing a fixed gray level of approximately 25 to 40%

gray level, rather than, e.g., 50%, more closely matches the actual midpoint of black to gray transition for most display devices. See, e.g., page 2, line 25, to page 3, line 2. The black to gray transition ordinarily is not linear for a typical CRT monitor. With a dither that produces a fixed gray level in the range of approximately 25 to 40%, however, the gray element selected by the user in comparison to the dithered background provides a more accurate indication of gamma or gray balance.

At the same time, by providing a plurality of gray elements in conjunction with a dithered gray background with a fixed gray level of approximately 25 to 40%, the claimed invention offers not only enhanced accuracy, but also a quick, simple, and efficient mode by which a user can make a selection to aid in gamma estimation. The Brettel applet would have provided no suggestion of the features identified above. Moreover, the prior art of record contains no motivation within the prior art to undertake modifications to the Brettel applet, let alone the substantial and precise modifications necessary to transform the Brettel applet to incorporate the requirements of the claimed invention. Therefore, Applicants respectfully submit that the Brettel applet would not support a prima facie case of obviousness, whether taken alone or in combination with other references of record.

The Berger reference provides no teaching sufficient to bridge the gap between the Brettel applet and the claimed invention. In particular, Berger does not disclose or suggest the use of a single dithered background representing a fixed gray level of approximately 25 to 40%, as required by the claimed invention. The Examiner noted that Berger shows dithered elements with gray levels of 25%, 50% and 75% ("Gamma Demonstration Image"). However, those dithered elements clearly are not used for gamma estimation. Rather, Berger presented dithered elements with gray levels of 25%, 50% and 75% to illustrate how dithering can be used to approximate the appearance of a continuous tone element, and the effect of gamma correction on the approximation. In particular, Berger presented the dithered elements adjacent continuous tone elements with actual intensity levels of 25%, 50% or 75% to show how dithering approximates continuous tone intensity.

For measurement of gamma, however, Berger fails to provide any teaching that would have suggested the use of a dithered background representing a gray level of approximately 25 to 40%. Berger presents an image for comparison of continuous tone gray elements to adjacent,

dithered gray elements ("Gamma Measurement Image"). Applicants note that the gray elements in the Gamma Measurement Image do not form a background. Moreover, Berger does not suggest that the dithered gray elements should represent a gray level of approximately 25 to 40%. Indeed, Berger makes no mention of such a feature. To the contrary, the dithered gray elements presented by Berger appear to be dithered to represent a gray level of approximately 50%. In particular, in each dithered gray element, Berger appears to turn on alternating pixels, i.e., every other pixel, resulting in a 50% dither, which is directly at odds with the requirements of the claimed invention.

As discussed above, using a dithered gray background with a fixed gray level of approximately 25 to 40%, rather than, e.g., 50%, can result in greater colorimetric accuracy. The fixed gray level required by the claimed invention can more closely match the actual midpoint of the black to gray transition for most display devices, recognizing that black to gray transition is not linear for a typical display device. The Berger reference fails to provide any suggestion of such an advantage, nor the particular gray level to achieve it, and therefore would have offered no guidance whatsoever to one of ordinary skill in the art relative to the requirements of Applicants' claims.

The claims dependent on independent claims 1 and 25 incorporate all of the limitations of those base claims, and therefore are patentable for the reasons expressed above. Moreover, the Brettel applet and the Berger reference also fail to disclose or suggest numerous additional limitations set forth in Applicants' dependent claims, some of which are discussed below.

With respect to claims 2 and 26, for example, the applied references provide no teaching that would have suggested the use of a single dithered gray background that represents a gray level of approximately 33%. As mentioned above, neither Brettel nor Berger offers any teaching that would have suggested such a feature.

With respect to claims 7 and 31, Brettel and Berger provide no teaching concerning estimation of a coarse gamma and a fine gamma, not to mention the selection of one of a first plurality of gray elements for coarse gamma and one of a second plurality of gray elements for the fine gamma. In the Office Action, the Examiner stated, with no support, that Brettel discloses such a feature. It is unclear what aspect of the Brettel applet could possibly relate to

this feature of Applicants' claims, inasmuch as Brettel employs a slider bar to produce a single gamma estimate.

With respect to claims 8 and 31, as with claims 7 and 31, the Examiner broadly asserted that Berger illustrates use of first gray elements for a coarse gamma estimate that represent greater gradations in gray intensity than the second plurality of gray elements used for the fine gamma estimate. Berger does not even mention estimation of a coarse gamma and a fine gamma. Consequently, it is difficult to understand how this reference could describe particular gray elements used for such estimates. If the Examiner was referring to the gray elements in the Gamma Demonstration Image as the first gray elements and the gray elements in the Gamma Estimation Image as the second gray elements, then Applicants respectfully submit that the Examiner's interpretation of Berger would be in error. The gray elements in the Gamma Demonstration Image do not form part of a gamma estimation process, and are merely provided to illustrate effects of gamma correction on dithering as a way to simulate a continuous tone intensity.

With respect to claims 12 and 36, the Examiner characterized Brettel as estimating both the blackpoint and the gray balance of the display device, and characterizing the colorimetric response of the display device based on the estimated gamma, blackpoint, and gray balance. However, the Examiner pointed to no feature within the Brettel applet that would conform to these requirements of Applicants' claims. Indeed, Applicants are unable to find any such features upon inspection of the Brettel applet. Accordingly, any support for the Examiner's characterization of Brettel appears to be lacking.

In view of the differences identified above, and the lack of any suggestion in the prior art to make the necessary modifications to arrive at the claimed invention, one of ordinary skill in the art would not have considered the claimed invention obvious. Applicants respectfully submit that the prior art of record would not support a prima facie case of obviousness, and therefore request that the Examiner withdraw the rejection of claims 1, 2, 5, 7, 8, 12, 25, 26, 29, 31, 32 and 36 under section 103.

Claim Rejection Under 35 U.S.C. § 103 in view of Brettel, Berger and Adobe

In the Office Action, the Examiner rejected claims 3, 4, 6, 9-11, 13-24, 27, 28, 30, 33-35, 37 and 39-40 under 35 U.S.C. 103(a) as being unpatentable over Brettel and Berger, and further in view of Adobe Technical Guides.

Applicants respectfully traverse the rejection to the extent such rejections may be considered applicable to pending claims 4, 6, 9, 11, 13-17, 19, 21-24, 28, 30, 33, 35, 37, 39, and 40 as amended. The applied references fail to disclose or suggest the inventions defined by Applicants' claims, and provide no teaching that would have suggested the desirability of modification to arrive at the claimed invention.

In this Amendment, Applicants have amended claims 1, 8, 9, 15, 19, 23, 25, 32 and 33 to more appropriately define the invention. Consequently, as discussed above, all of claims 1, 2, 4-9, 11-17, 19, 21-26, 28-33, 35-37, 39 and 40 now require gamma estimation based on selection of one of a plurality of gray elements that appears to most closely blend with a single dithered gray background displayed simultaneously with the gray elements, and which represents a fixed gray level of approximately 25 to 40%.

Amended claim 15 recites, for example, a system comprising a web server transmitting web pages, a color image server transmitting color images referenced by the web pages, a color profile server guiding clients through a color profiling process to obtain information characterizing the color responses of display devices associated with the clients, and one or more color correction modules that modify the color images transmitted by the color image server based on the information to improve the accuracy of the color images.

More particularly, as set forth in claim 15, the information a gamma determined by selecting one of a plurality of gray elements by the display device that appears to most closely blend with a single dithered gray background displayed simultaneously with the gray elements that represents a fixed gray level of approximately 25 to 40%. At least some of the gray elements have different gray levels.

In view of the differences described above with respect to the rejection of claims 1, 2, 5, 7, 8, 12, 25, 26, 29, 31, 32 and 36, Applicants respectfully submit that Brettel and Berger would likewise not support a prima facie case of obviousness with respect to claims 3, 4, 6, 9-11, 13-24, 27, 28, 30, 33-35, 37 and 39-40. Moreover, the Adobe reference provides no teaching sufficient

to overcome the basic deficiencies in the Brettel and Berger references. For example, like Brettel and Berger, Adobe makes no mention of the use of a dithered gray background that represents a fixed gray level of approximately 25 to 40%.

In addition, with respect to independent claim 15, as amended, the fact that the Adobe Gamma application is designed to work with different operating systems falls far short of any teaching that would have suggest modification of Brettel applet to somehow include a web server, color image server, color profiling server, and color correction module. The Adobe Gamma application would not seem to implicate the use of a web server, let alone the inclusion of a color image server that transmits color images, a color profile server that guides clients through a color profiling process to obtain information, and one or more color correction modules that modify the color images transmitted by the color image server based on the information.

Neither the Adobe Gamma application, nor the Brettel applet and Berger reference, provides any mention of such features. Therefore, one of ordinary skill in the art having access to Brettel, Berger, and Adobe would be versed in the general state of well known art with respect to gamma estimation, but would have no concept of the additional features set forth in claim 15. Accordingly, the Adobe reference falls far short of any teaching that would have suggested the desirability of modifying Brettel to include the requirements of Applicants' claims. Moreover, it is unclear how Brettel could be modified to include such features, inasmuch as it is essentially a gamma estimation applet and nothing more.

The claims dependent on independent claims 1, 15, and 25 incorporate all of the limitations of those base claims, and therefore are patentable for the reasons expressed above. Moreover, the Brettel applet, the Berger reference and Adobe also fail to disclose or suggest numerous additional limitations set forth in Applicants' dependent claims, some of which are discussed below.

With respect to claim 16, Adobe does not discuss transmission of information in a web cookie. The Examiner's conclusion that the mention of servers and clients in the Adobe reference somehow would have suggested the use of a cookie seems rather strained. Servers and clients communicate, the majority of the time, by network protocols that do not involve exchange of web cookies. Therefore, Applicants respectfully submit that a conclusion that the mere

implication of a network environment would have suggested transmission of cookies as an obvious modification is misplaced.

Claims 9 and 11, as amended, require simultaneously displaying a plurality of first green elements within a web browser on a display device, displaying a dithered green background on the display device simultaneously with the first green elements, the dithered green background representing a fixed green level of approximately 25 to 40%, and receiving user selection of one of the first green elements with a green level that appears to most closely blend with the green level represented by the dithered green background.

Claims 9 and 11 further require simultaneously displaying a plurality of second green elements within the web browser on the display device, wherein the second green elements includes the selected first green element. At least some of the first green elements have different green levels. Likewise, at least some of the second green elements have different green levels. According to claim 9, the different green levels of the second green elements represent finer gradations in green intensity than the different green levels of the first green elements.

Upon displaying the dithered green background on the display device simultaneously with the second green elements, the method of claims 9 and 11 further require receiving user selection of one of the second green elements with a green level that appears to most closely blend with the green level represented by the dithered green background. Generating gray elements includes generating a first gray element with red, green and blue values substantially equal to the green value of the selected green element, and generating red-blue shifted gray elements with green values substantially equivalent to the green value of the selected second green element.

At least one of the red and blue values of each of the red-blue shifted gray elements is different from the green value of the selected green element, as set forth in claims 9 and 11. The red-blue shifted gray elements thereby represent shifts in the red channel, blue channel, or a combination of the red and blue channels away from the first gray element. Estimating a gamma includes selecting one of the first gray element and the red-blue shifted elements that appears to most closely blend with the dithered gray background displayed by the display device, and estimating the gray balance of the display device based on the selected one of the first gray element and the red-blue shifted elements.

Contrary to the requirements of claims 9 and 11, Brettel, Berger and Adobe each fail to disclose the generation of red-blue shifted gray elements that represent shifts in the red channel, blue channel, or a combination of the red and blue channels away from a first gray element, as defined in the claims. Adobe merely discloses the computation of separate, individual gammas for the red, green and blue channels. For example, Adobe depicts a red element presented against a red background, a green element presented against a green background and a blue element presented against a blue background.

For purposes of clarification, the inventions of amended claims 9, 11, 19, 21, 33 and 35 require that the first gray element has equal values of red, green and blue. The equal value corresponds to the value of the selected green element. Hence, the green channel is used to determine not only the green value but also the red and blue values of the first gray element. The red-blue shifted gray elements include the same value of green but different red and blue values, and thereby serve to reveal gray balance issues. As described in Applicants' specification, gray balance provides an indication of the amount of color shift of a neutral gray toward one or more of the color channels used by the display device, e.g., red, green, and blue. For example, Applicants specification states:

Thus, in this gray balance process, the green intensity value selected in the fine gamma process is used to generate the gray patches that exhibit +/- (plus/minus) differences or "shifts" in red and blue about the value of the central gray patch derived from the gamma estimate. For example, the value of green selected in the fine gamma process can be displayed in the center of the range in conjunction with substantially identical values of red and blue. The gammas for red and blue are then fine tuned by the gray balance determination, which helps identify red-blue imbalance in the display device. Thus, the green gamma is "locked in" in the gray balance step, while the red and blue imbalance is determined. In other words, every patch in the gray balance array carries the same green value, but is modulated by different gradations of red and blue. This step eliminates one axis of variation, green, but permits identification of any imbalance between red and green or blue and green. This limits the range of choices to a more finely-tuned area, and aids the user in making a more accurate selection.

Page 35, line 20, to page 36, line 2. Adobe makes no mention of red-blue shifted gray elements to estimate gray balance. Instead, Adobe simply estimate separate gammas for the red, green and

blue channels. Therefore, Adobe, combined with Brettel and Berger, clearly would not support a prima facie case of obviousness with respect to claims 9-11.

With respect to claims 22 and 23, Brettel and Berger provide no teaching concerning estimation of a coarse gamma and a fine gamma, not to mention the selection of one of a first plurality of gray elements for coarse gamma and one of a second plurality of gray elements for the fine gamma, as discussed above with respect to claims 7 and 31. Adobe offers no further teaching that would have suggested such a feature.

In addition, none of the applied references appear to contemplate the requirements of claim 24, as discussed above with respect to claims 12 and 36.

In view of the differences identified above, and the lack of any suggestion in the prior art to make the necessary modifications to arrive at the claimed invention, one of ordinary skill in the art would not have considered the claimed invention obvious. Applicants respectfully submit that the prior art of record would not support a prima facie case of obviousness, and therefore request that the Examiner withdraw the rejection of claims 3, 4, 6, 9-11, 13-24, 27, 28, 30, 33-35, 37 and 39-40 under 35 U.S.C. 103(a) under section 103.

New Claims

Applicants have added claims 41-48 to the pending application. The applied references fail to disclose or suggest the inventions defined by Applicants' new claims, and provide no teaching that would have suggested the desirability of modification to arrive at the claimed inventions.

As one example, the references fail to disclose or suggest simultaneously displaying a green elements within a web browser, and displaying a dithered green background on the display device simultaneously with the green elements, the dithered green background representing a fixed green level of approximately 25 to 40%.

In addition, the references do not disclose receiving user selection of one of the green elements with a green level that appears to most closely blend with the green level represented by the dithered green background, generating a first gray element with substantially equivalent red, green and blue values, each of the red, green and blues being substantially equivalent to a green value of the selected green element, and generating red-blue shifted gray elements with green

values substantially equivalent to the green value of the selected second green element, wherein at least one of the red and blue values of each of the red-blue shifted gray elements is different from the green value of the selected green element.

Finally, there is no suggestion in the art of selecting one of the first gray element and the red-blue shifted elements that appears to most closely blend with a dithered gray background, and estimating gammas for the display device based on the red, green and blue values of the selected one of the gray element and the red-blue shifted elements.

CONCLUSION

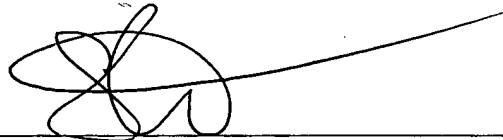
All claims in this application are in condition for allowance. Applicants respectfully request reconsideration and prompt allowance of all pending claims. Please charge any additional fees or credit any overpayment to deposit account number 50-1778. The Examiner is invited to telephone the below-signed attorney to discuss this application.

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2-27-04

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